Stat and Data Analysis

5.3 Practice

For each situation identify:

1. Sample
2. Sample Frame
3. Population
4. Statistics
5. Parameters
6. Sample Design
7. Errors – explain
8. An administrator is interested in the percent of students in the school that plan to take the ACT exam. He goes to all the Geometry classes in the fall and has the students there fill out a survey. He finds 46% of students plan to take the ACT exam.
9. Another administrator is interested in the same thing but instead randomly picks 3 Titan Forums from each grade and surveys all the students in those classes. She finds that 33% of students plan to take the ACT exam.
10. Another administrator decides to go to all the lunches and selects every 20th student coming out of the line from lunch. He asks them, “Given the importance of demonstrating your commitment to educational goals to potential colleges that you wish to go to, do you plan on also taking the ACT exam?” He finds that 58% of students plan on taking the ACT exam.
11. A local community service organization wants to find out what kind of support they would get from the neighborhood to convert a vacant lot into a community garden. They go to the local park on a Saturday and Sunday afternoon. They stop every other person at the park and ask them a few questions.
12. A state senator tired of the politics of his party is thinking of running as an independent. He is interested in seeing what his chances would be of being reelected as an independent candidate. His staff checks the voting records and randomly samples 50 voters from each county that had voted for him in the previous election. They call these voters and ask if they would vote for him if he were no longer a member of the political party.

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